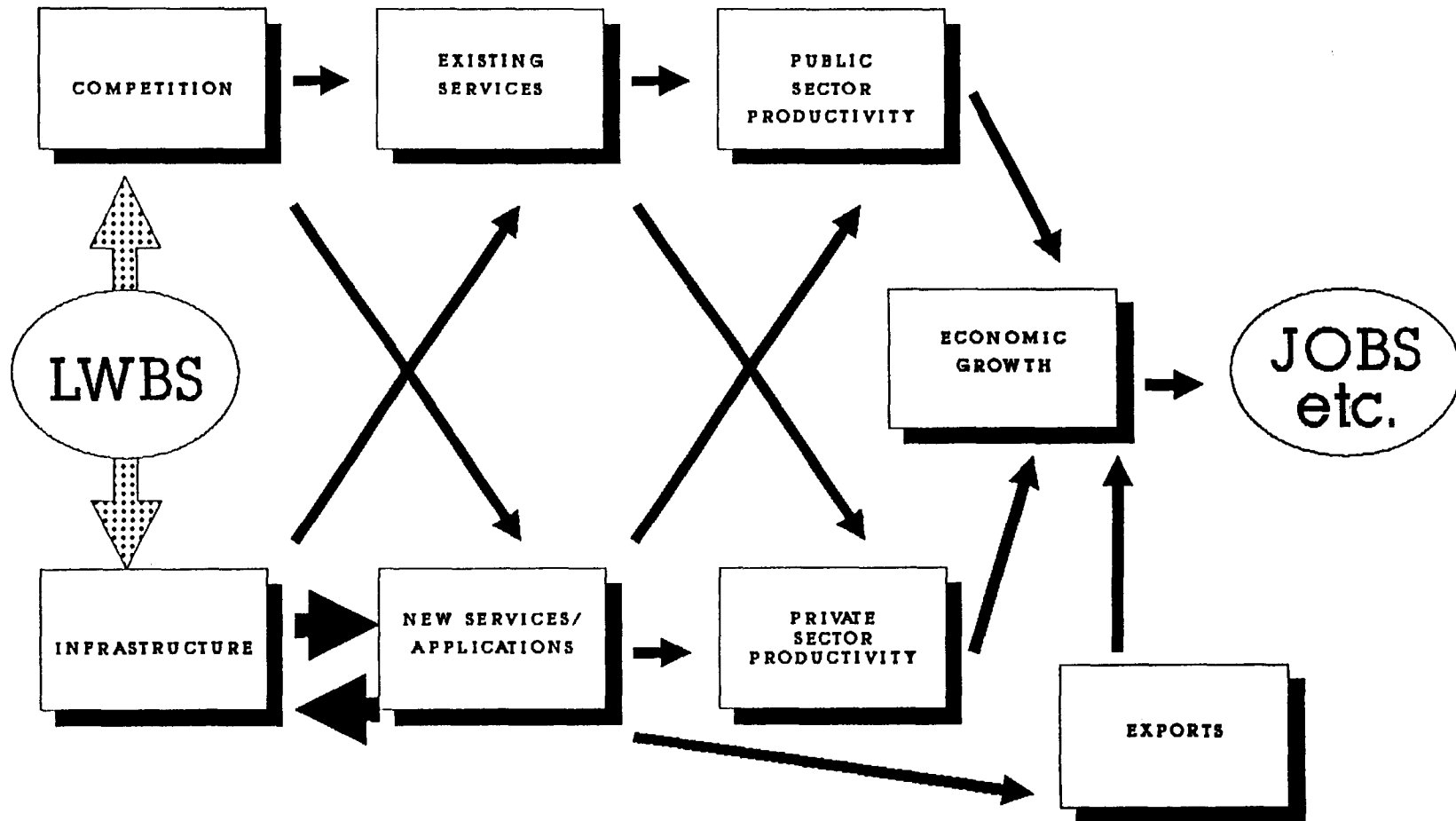
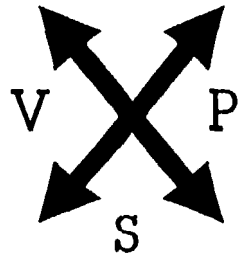


Public Interest Benefits of a Wireless Broadband Telecommunications Network

- Wireless can provide broadband much sooner and at a fraction of the cost.
- Rapid deployment would create tens of thousands of high paying manufacturing and service jobs in the electronics industry.
- Other industries benefitting: education, health care, information, entertainment, publishing.
- The export opportunities will also improve our balance of payments position.

How LWBS Supports Policy



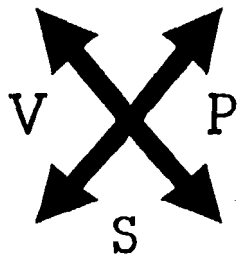


INFRASTRUCTURE



NEW SERVICES/APPLICATIONS

- Successful innovation is difficult:
 - Fax was demonstrated before the telephone.
 - Picture telephones were demonstrated before WWII.
 - Videoconferencing needed 20 years to take off.
 - Telemedicine didn't make it in the '70s.
 - Interactive cable TV failed in the '70s.
 - Videotex didn't make it in the '80s.
 - Teletext didn't make it in the '80s.

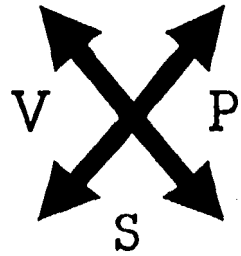


INFRASTRUCTURE



NEW SERVICES/APPLICATIONS

- Difficulties often arise with local distribution
 - Costs
 - Quality
 - Utilization
- Iceberg phenomenon
 - Success often comes from allowing users to do new things (submerged portion), rather than doing existing things more efficiently.
 - The Xerox machine was not just a replacement for carbon paper.
 - Exploring the submerged portion is difficult.

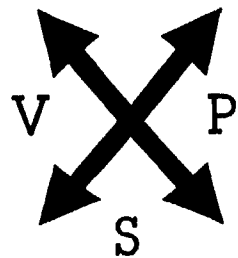


INFRASTRUCTURE



NEW SERVICES/APPLICATIONS

- Critical in developing new applications
 - New service providers
 - User initiatives
 - Good fortune

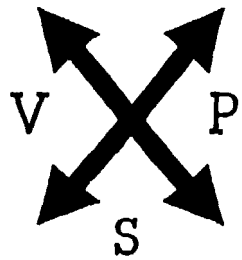


INFRASTRUCTURE



NEW SERVICES/APPLICATIONS

- Success comes from trial and error.
- The process must be as open as possible to "outsiders".
- A fertile environment for innovation is one in which anyone can obtain necessary transmission quickly, conveniently and cheaply.
- Enabling systems include
 - digital compression
 - ADSL, HDSL
 - LWBS



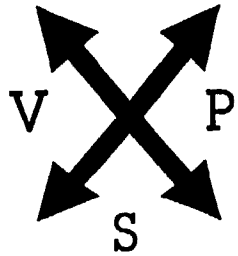
INFRASTRUCTURE



NEW SERVICES/APPLICATIONS

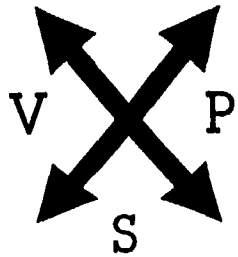
"The Missing Link"

- IBNs suffer a serious "applications gap".
- What new applications will B-ISDN support that less expensive networks could not support?
- Today's infrastructure can be upgraded at modest cost to accommodate many of the services/applications now associated with IBNs.
- As and when enough of these services prove themselves, IBNs may be viable.



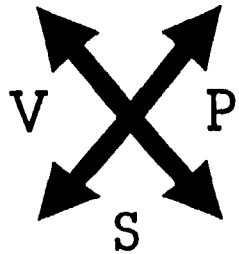
The Synergy Between LWBS and Fiber Optic Networks

- The forecasting problem cannot be solved.
- We need new applications to drive the infrastructure to drive the applications...
- There is no guarantee that adequate innovation will emerge solely from the desk-tops of cable companies and telcos.



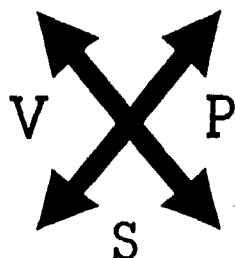
The Synergy Between LWBS and Fiber Optic Networks

- The infrastructure must provide a fertile environment for innovation by corporate users and start-up providers.
- They must be able to obtain necessary transmission quickly, conveniently and cheaply.
- There are better catalysts for this environment than industrial policy in the form of cross-subsidy and public subsidy.



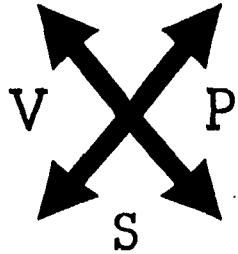
The Video/Phone Petition for Rulemaking

- Petition for Rulemaking filed on 1/15/92.
- Expands the technology proposal of Suite 12.
- Points to the emerging market demand for video telecommunications services which has been hampered by the lack of local distribution facilities.



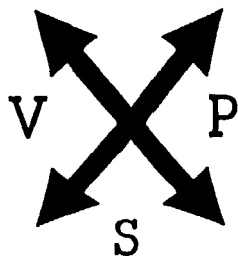
The Video/Phone Petition for Rulemaking

- Asserts that the marketplace should be allowed to determine the highest and best use for the service rather than restricting it to the provision of cable television services.
- Asks the Commission to
 - set aside the 27.5-29.5 GHz band for LWBS
 - license two operators per market
 - allow operation as carrier or non-carrier
 - allow operators to provide any service
 - preempt inconsistent state regulation
 - adopt a patent licensing policy



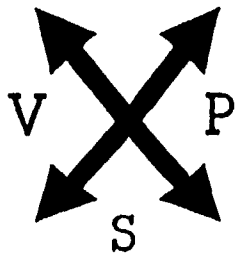
Public Interest Benefits of a Wireless Broadband Telecommunications Network

- Delay in deployment of broadband will cause additional wasteful investment in obsolete technology.
- Accelerating deployment of broadband could create as much as \$321 billion of new GNP and 0.4% annual productivity growth over the next 16 years.



The FCC Should Continue to Accept 28 GHz Applications For Filing

- By continuing to accept applications for filing, the Commission has insured that the service will get off the ground quickly.
- Only 400-500 applications have appeared on Public Notice to date.
- Most significantly, 177 channels in 123 markets are now past cut-off.
- With only a handful of applications per channel, lotteries will not be necessary in most cases.

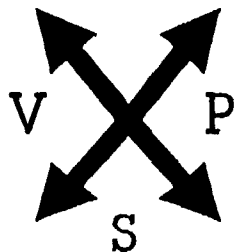


LWBS SPURS GROWTH

LWBS does not seek to creamskim or cannibalize existing telecommunications businesses.

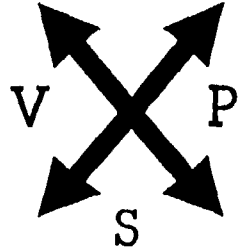
Rather, it is aimed at new, exciting markets that have been unable to develop because existing cable or telco facilities are not designed to serve them.

Thus, LWBS will expand the total communications marketplace.



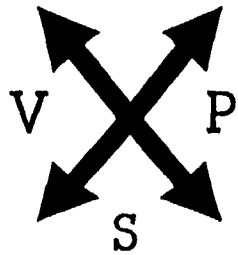
The Impact of the FCC's Video Dial Tone Decision

- The Dial Tone decision is tempered by the Telco's half a loaf reaction.
- Still years away from full implementation.
- Fallow ground at 28 GHz could be mined quickly for enormous benefits, new opportunities plus significant added competition.



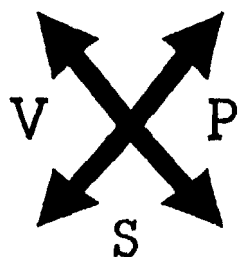
Why the FCC Should Act

- LWBS is a highly efficient user of the spectrum.
- LWBS supports "portfolios" of new and existing services.
- LWBS increases competition in existing markets (e.g., fractional T-1, cable tv services).
- LWBS makes the national infrastructure much more accommodating towards new services/applications.



Why the FCC Should Act

- These new services/applications will stimulate private and public sector productivity.
- They will also provide information products and services for export.
- As a stepping stone, LWBS will help put far more ambitious infrastructures within our reach.
- LWBS is a market solution which raises no issues of industrial policy.



The Bottom Line

LWBS does not step on anyone's toes--28 GHz is virgin spectrum--no one will be displaced.

LWBS is technologically and commercially ripe for the marketplace.

That's what unused spectrum is for--to provide exciting new benefits to the American public.